

REMARKS

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached Appendix is captioned "Version with markings to show changes made."

Claim 1 stands provisionally rejected under a 35 U.S.C. § 101 double patenting rejection for allegedly claiming the same invention as defined in Claim 2 of copending application Serial No. 09/588,850. Applicants respectfully traverse this rejection.

In a separate paper directed to Serial No. 09/588,850, filed March 6, 2002, Applicants canceled Claim 2. Accordingly, this rejection has been rendered moot.

Claims 2-12 and 19-23 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over copending application Serial No. 09/588,850. In response, enclosed herewith is a Terminal Disclaimer and the appropriate Terminal Disclaimer Fee of \$110.00. Accordingly, Applicants respectfully request the withdrawal of this obviousness-type double-patenting rejection.

Claim 8 stands objected to for an informality. Applicants have corrected the informality noted by the Examiner, and respectfully request that the Examiner withdraw this objection.

Claims 2, 6, and 18 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Claim 18 was cancelled in Amendment A, thereby

rendering this rejection moot with respect to this claim. However, with respect to Claims 2 and 6, Applicants respectfully traverse this rejection.

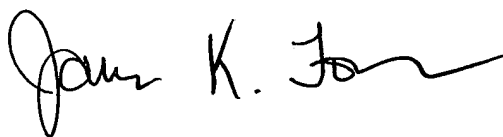
Applicants have amended Claims 2 and 6 to overcome this § 112 rejection. In particular, ~~Claim 2 has been divided into two claims (Claims 2 and 24), whereby the broad~~ subject matter is defined in one claim and the more narrow subject matter in another claim. Similarly, the subject matter of Claim 6 has also been divided into two claims (Claims 6 and 25). Accordingly, in light of the claim amendments, Applicants respectfully request the withdrawal of this § 112 rejection.

For all of the above reasons, Applicants request reconsideration and allowance of the claimed invention. The Examiner is invited to contact the undersigned attorney if an interview would expedite prosecution.

Respectfully submitted,

GREER, BURNS & CRAIN, LTD.

By



James K. Folker
Registration No. 37,538

March 7, 2002

Suite 2500
300 South Wacker Drive
Chicago, Illinois 60606
(312) 360-0080

Customer No. 24978

K:\0941\63365\amd-b.doc



VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Claims 2, 6, 8, 19, 20, 22 and 23 have been amended and new Claims 24 and 25 have been added as follows:

2. (Twice Amended) The magnetic recording medium as claimed in claim 1, wherein said ferromagnetic layer is made of a material selected ~~form~~from a group consisting of Co, Ni, Fe, Ni alloys, Fe alloys, and Co alloys, ~~which include CoCrTa, CoCrPt, and CoCrPt M, where M = B, Mo, Nb, Ta, W or alloys thereof.~~

6. (Twice Amended) The magnetic recording medium as claimed in claim 1, wherein said magnetic layer is made of a material selected from a group consisting of Co, and Co alloys, ~~which include CoCrTa, CoCrPt and CoCrPt M, wherein M = B, Mo, Nb, Ta, W or alloys thereof.~~

8. (Once Amended) The magnetic recording medium claimed in claim 7, which further comprises:

a non-magnetic intermediate layer interposed between said underlayer and said exchange layer structure,

RECEIVED
MAR 25 2002
TC 1700

said non-magnetic intermediate layer having a hcp structure alloy selected from a group consisting of ~~CrCr-M~~ CoCr-M, where M = B, Mo, Nb, Ta, W or alloys thereof, and having a thickness in a range of 1 to 5 nm.

19. (Once Amended) The magnetic recording medium as claimed in claim 1, which is ~~adapted~~ configured and arranged for longitudinal magnetic recording.

20. (Once Amended) A magnetic recording medium ~~adapted for~~ longitudinal magnetic recording, comprising:

at least one exchange layer structure; and

a magnetic layer formed on said exchange layer structure, said exchange layer structure including:

a ferromagnetic layer having a thickness in a range of 2 to 10 nm;

and

a non-magnetic coupling layer provided on said ferromagnetic layer and under said magnetic layer,

said ferromagnetic layer and said magnetic layer having antiparallel magnetizations.

22. (Once Amended) A magnetic recording medium ~~adapted for~~ longitudinal magnetic recording, comprising:

at least one exchange layer structure; and

a magnetic layer formed on said exchange layer structure, said exchange

layer structure including:

a ferromagnetic layer; and

a non-magnetic coupling layer, having a thickness in a range of 0.4 to 0.9 nm, provided on said ferromagnetic layer and under said magnetic layer,

said ferromagnetic layer and said magnetic layer having antiparallel magnetizations.

23. (Once Amended) A magnetic recording medium adapted for longitudinal magnetic recording, comprising:

at least one exchange layer structure; and

a magnetic layer formed on said exchange layer structure, said exchange

layer structure including:

a ferromagnetic layer; and

a non-magnetic coupling layer, having a thickness of approximately 0.8 nm, provided on said ferromagnetic layer and under said magnetic layer,

said ferromagnetic layer and said magnetic layer having antiparallel magnetizations.—

24. (New Claim) The magnetic recording medium as claimed in claim 1, wherein said ferromagnetic layer is made of a material selected from a group consisting of CoCrTa, CoCrPt, and CoCrPt-M, where M = B, Mo, Nb, Ta, W or alloys thereof.

25. (New Claim) The magnetic recording medium as claimed in claim 1, wherein said magnetic layer is made of a material selected from a group consisting of CoCrTa, CoCrPt and CoCrPt-M, wherein M = B, Mo, Nb, Ta, W or alloys thereof.